

REMARKS

The Office Action mailed March 18, 2004, has been received and its contents carefully noted. Applicants acknowledge with thanks the Action's indication that the subject matter of claim 55 is allowable over the prior art of record. Reconsideration of the application is respectfully requested in view of the foregoing amendments and the comments set forth below.

By this Amendment, withdrawn claims 37-52, and 59-61 have been canceled; claim 31 has been canceled; and claims 32, 34, 36, 53, 55 and 62 have been amended. Accordingly, claims 32-34, 36, 53-57 and 62 are pending in the present application. Indicated allowable claim 55 has been rewritten in independent form to include all of the limitations of the base claim (claim 31) and thus, should be allowed over the prior art of record.

Independent claim 53 is believed to be generic to the clamping sleeve embodiments. Since claim 53 is independent and believed to be allowable over the prior art of record, withdrawn dependent claims 54, 56-57 should be allowable over the prior art of record. The following remarks are submitted in support of the allowability of claim 53 and its depending claims 32-34, 36, 54, 56-57 and 62.

Applicants thank Examiner Garcia and Supervisory Primary Examiner Stodola for the courtesies extended to their representative during the personal interview on May 11, 2004. During that interview, Applicant's representative explained that in the claimed invention the clamping sleeve is elastically deformed and pre-tensioned by compression in order to insert the constructive element and then partially relaxed to hold the constructive element in contrast to the clamping tool taught by Renz et al. The Examiner clarified his position as to the rejection of the claims under Renz et al. Supervisory Primary Examiner Stodola indicated that a combination claim positively reciting the

constructive element and the connecting element would not be anticipated by Renz et al and that the arguments presented at the interview may be persuasive. Examiner Garcia and Supervisory Primary Examiner Stodola indicated that they would consider such an amendment when it is formally presented. The following remarks set forth Applicant's record of the substance of the interview.

Renz et al. is directed to an expansion element 7 which is inserted into a workpiece 5 and then expands inside the workpiece in order to hold workpiece 5 about expansion element 7. That is, Renz et al. release the stress before putting the workpiece and expansion element together and apply an external force (tensioning) **after** the workpiece and expansion element have been put together. This is in direct contrast to the claimed invention where “the clamping sleeve is elastically deformed and pre-tensioned by compression in order to insert the at least one constructive element, and the clamping sleeve is partially relaxed to form the connection.” The claimed invention has a clamping sleeve that is pre-tensioned **before** the constructive element is inserted into the clamping sleeve. Accordingly, Renz et al. teach against producing the claimed internal holding force when the “clamping sleeve is **partially relaxed**” as claimed by Applicants.

Renz et al. further teach that an external force is applied by screwing (Figs. 4 and 5) or hydraulically (Fig. 6) in order to expand the expansion element when it has been inserted into the workpiece. Thus, Renz et al. is concerned with inserting an expansion element into a workpiece and then expanding the expansion element, or, inserting a pin 10 or mandrel 19' into the expansion element and applying an external force to expand the expansion element. This is not the claimed invention.

It is submitted that Renz et al. are not capable of applying a holding force in an elastically expanded state **onto** a constructive element that is to be connected. To the contrary, the expansion element 7 of Renz et al. exerts an expansion force against workpiece 5 **after the expansion element is inserted into the workpiece**. Accordingly, Renz et al. teach against the claimed invention of a connecting element in combination with at least one constructive element. Independent claim 53 states that the “constructive element is inserted in the axial direction [of said tensioning element].” Thus, it is respectfully submitted that Renz et al. does not a constructive element that is inserted in the axial direction of a tensioning element where the connection is realized when the clamping sleeve of the tensioning element is partially relaxed. Accordingly, Renz et al. cannot anticipate claim 53 and do not render the same unpatentable because Renz et al. teach against the claim invention.

Claim 33 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Renz et al. in view of the publication entitled “TI-NI Shape Memory Alloys” by Duering, et al (hereinafter referred to as “Duering”) as set forth in the middle of page 7 of the Action. This rejection is respectfully traversed.

While the above publication by Duering mentions that “alloys with 49.0 to 50.7 at.% titanium are commercially common, the Duering publication does not disclose, teach or even suggest a connecting element for mechanically connecting constructive elements as claimed by Applicants. Nowhere does the Duering publication teach or suggest a connecting element comprising an elastically deformable tensioning element which applies a holding force in an elastically expanded state onto a constructive element that is inserted into the tensioning element. Nor does the Duering publication suggest

that the commercially available titanium-nickel can be used in a tensioning element where a constructive element is inserted in the axial direction of a tensioning element in a pre-tensioned state and then partially relaxed to produce the holding force. As stated above, Renz et al. teaches an expansion element employing an opposite principle of the claimed tensioning element comprising a clamping sleeve that produces an internal holding force when partially relaxed and thus, Renz et al. teach against the claimed invention. Accordingly, any combination of Renz et al. and the Duering publication cannot render the claimed invention obvious.

For the above stated reasons, it is submitted that all of the pending claims, i.e., claims 32-34, 36, 53-57 are allowable over the prior art of record and are in condition for allowance. Therefore, it is respectfully submitted that this Amendment After Final Rejection places the application in condition for allowance; does not raise new issues that require further consideration and/or search as the changes to claim 53 and 55 basically incorporate the subject matter of base claim 31; and do not raise the issue of new matter. Accordingly, Applicants respectfully request that this Amendment After Final Rejection be entered and that this application be passed to issuance.

In view of the foregoing, Applicants request the issuance of the Notice of Allowability rejoining the clamping embodiment species of the invention and indicating that claims 32-34, 36, 53-57 and 62 are allowed over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this application, the Examiner is requested to telephone the undersigned to arrange such a conference.

Respectfully submitted,

Date: June 10, 2004

A handwritten signature in cursive script, appearing to read "Catherine Voorhees", written over a horizontal line.

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